

# Benefits of the Science Pillars

The Laboratory's greatest strength is in our multidisciplinary capabilities. The Pillars draw on these capabilities—across traditional organizational and disciplinary boundaries—to help us accomplish our missions.

## Lab-Wide Initiatives Guided by the Pillars

- The LDRD Strategic Investment Plan is built around the Pillars.
- The Laboratory's External Reviews are organized by Pillar.
- Institutional equipment investment calls are structured around the Pillars.
- Facility investment plans are heavily informed by the Pillar strategy documents.
- The Pillars guide recruiting and strategic hires of new staff.

Get Involved in the Science Pillars  
[www.lanl.gov/science-innovation/pillars](http://www.lanl.gov/science-innovation/pillars)

## What are the Science Pillars?

### The Pillars Create a Framework for Working Together

The Pillar framework, defined by four overarching science themes (the pillars), allows our scientists to apply their skills across the boundaries of traditional disciplines.

### The Pillars Apply Our Diverse Capabilities to Missions

Through the four Pillars, we can tap into and bring together the diversity of science capabilities where they are most needed: current and future missions.

### The Pillars Inform Investments and Future Planning

Each Pillar has discrete science goals fundamental to building our science and technology base. Managers use them to make strategic investment choices, guide recruitment and training strategies, and serve as a framework for our partnerships.

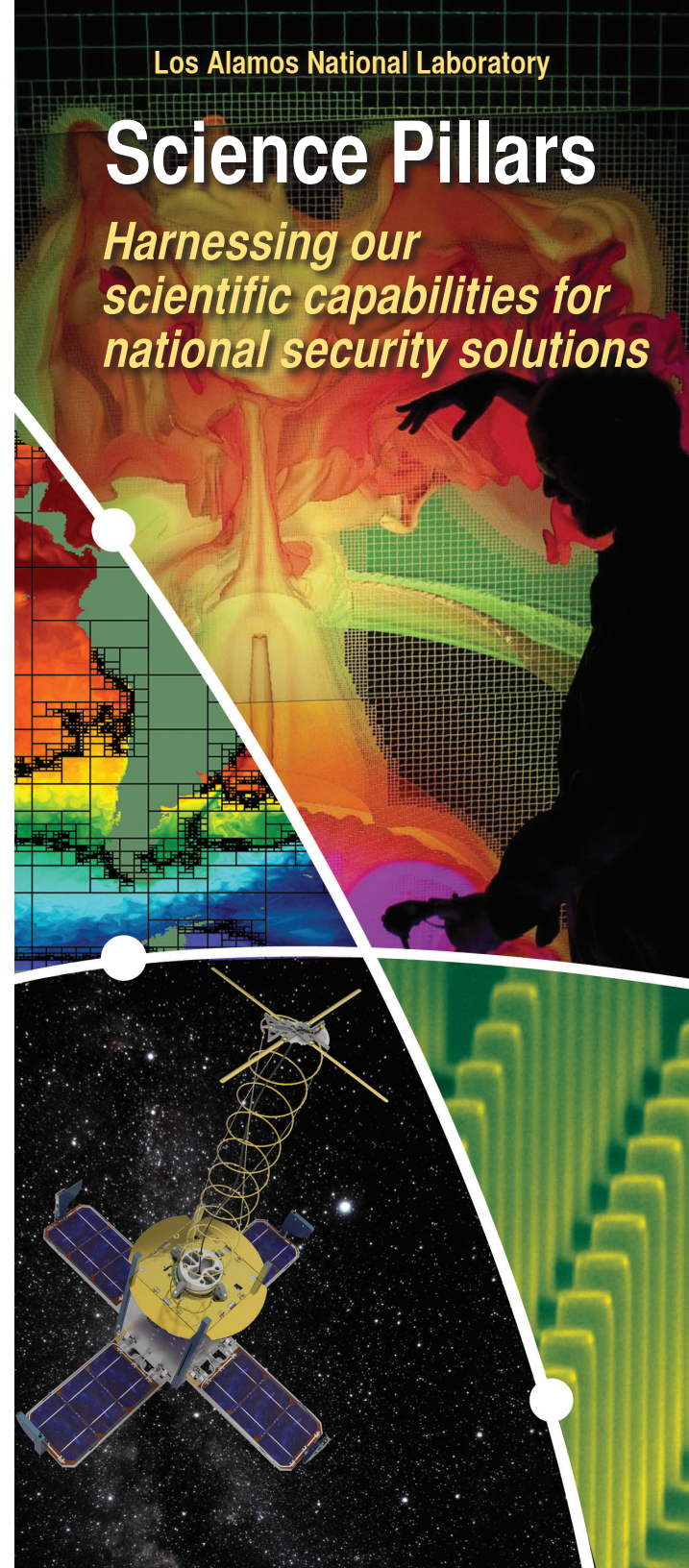


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Los Alamos National Laboratory

# Science Pillars

*Harnessing our scientific capabilities for national security solutions*

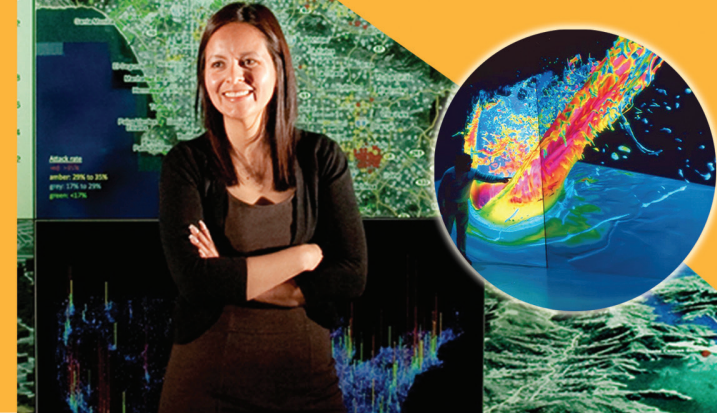




## Information, Science, and Technology Pillar

We are leveraging advances in theory, algorithms, and the exponential growth of high-performance computing to accelerate the integrative and predictive capability of the scientific method.

*We are developing IST capabilities in computational co-design, data science at scale, and complex networks.*



## Science of Signatures Pillar

We are applying science and technology to intransigent problems of system identification and characterization in areas of global security, nuclear defense, energy, and health.



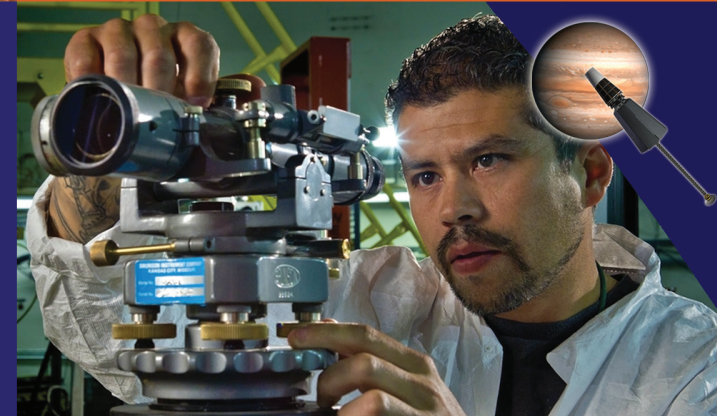
*The SoS pillar is revolutionizing measurements for threat-specific signatures; discovering signatures that identify and characterize threats, and deploying advanced technology.*

## Nuclear & Particle Futures Pillar

We are integrating nuclear experiments, theory, and simulation to understand and engineer complex nuclear phenomena.

*NPF focuses on fundamental advancements in:*

Nuclear and particle science, astrophysics, and cosmology  
Applied nuclear science and engineering  
High energy density plasmas and fluids  
Accelerators and electrodynamics



## Materials for the Future Pillar

In materials science, we are optimizing materials for national security applications by predicting and controlling their performance and functionality through discovery science and engineering.



*The Materials pillar will allow us to predict and create new materials functionality in previously inaccessible extremes.*